

## AI TRANSFORMATION TALES

# Enrich Medical Records Analysis & Underwriting Using AI



## BACKGROUND

Our client, a leader in the insurance segment, received numerous claims for processing each day. It was challenging to manually read every medical report and detect the abnormalities highlighted.

They needed a solution to auto verify whether the summary provided matched with the abnormalities in the laboratory report and an AI-powered underwriting solution to help overcome the operational and financial bottlenecks associated with manual underwriting.

The challenges the client faced included:

- Countless instances of rekeying data to check for application completeness
- Multiple back-and-forths between stakeholders
- Varying data types between lab reports
- The need to maintain a fine balance between performance and accuracy
- The need to interpret laboratory summaries and compare them with reports



## THE SOLUTION

Our AI experts got to work fulfilling our client's business objectives. After multiple consultations, we drew up a detailed roadmap and devised a solution that utilized cutting-edge technologies.

### Our experts

- Devised a method to extract medical records with deviations using multiple deep-learning and ML models
- Devised a method to thoroughly analyze the text summary report provided along with each scan report
- Devised a method to generate an overall summary of records given for a claim and a way to compare these records with the summary provided by the claimant in their report
- Created an AI-driven underwriting system to assist underwriters by accurately quantifying unstructured and qualitative data points



## TECHNOLOGY SNAPSHOT

- Python
- Text summarization
- CNN model for record analysis
- NLP-based similarity detection
- UI layer for annotation, correction, and labelling



## BUSINESS BENEFITS

Our AI experts' efforts offered major benefits for our client including

- Improved underwriting risk management
- A surge in underwriting efficiency
- Increased customer loyalty
- A boost in new-business acquisition
- Increased cross-sell opportunities





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